

# **ABSTRACT**

Disclosed herein is a method of optically producing a clock, in which clock components are extracted from the spectrum of a transmitted optical signal and the influence of noise and jitter on the extracted clock components is reduced, thus improving the stability of an optical communication system. In the clock producing method of the present invention, a plurality of clock components are extracted by filtering out frequency bands between neighboring intensity peaks, and then a clock having reduced noise and jitter is produced by logically ANDing two or more of the plurality of clock components extracted at the step of extracting the plurality of clock components.